REMARKS

CLAIMS 1-8 AND 10-12

Claims 1-8 and 10-12 were rejected under 35 U.S.C. §103(a) as being unpatentable over Brown et al. (U.S. Patent Number 6,587,822, hereinafter Brown) in view of Ladd et al.(U.S. Patent Number 6,470,317, hereinafter Ladd), in view of Parks (U.S. Patent Number 6,038,573), and in further view of Sakata (U.S. Patent Number 6,085,190).

Independent claim 1 provides a speech recognition interface for a speech recognition engine. The interface comprises a compiler that produces a binary grammar from a markup language grammar written in a markup language. The markup language grammar comprises rule tags that delimit a grammar structure that may be referenced by other grammar structures within the markup language grammar by a name attribute of the rule tags. The name attribute is set within one of the rule tags. A grammar engine provides the binary grammar to the speech recognition engine.

Independent claim 1 is not shown or suggested by the combination of Brown, Ladd, Parks, and Sakata. In particular, none of the references show or suggest rule tags that delimit a grammar structure that may be referenced by a name attribute of the rule tags, where the name attribute is set within one of the rule tags.

In Sakata, HTML pages are shown with input tags that include a name attribute. In the Final Office Action, it was asserted that it would be obvious to take the name attributes in the HTML tags of Sakata and use them in the tags of Parks. Applicants respectfully dispute this assertion.

In Parks, a Backus-Naur notation is used to describe a grammar. In such a structure, the name of the grammar structure is found on the left-hand side of a definition symbol (::=) and

the grammar structure is found on the right-hand side of the definition symbol. Each grammar rule in Parks describes sequences of words and tags that can be found in a document. The tags do not include name attributes that allow structures delimited by the tags to be referenced in other grammar structures. Instead, grammar structures are referenced by making reference to the name of the grammar structure found to the left of the definition symbol.

If a name attribute were added within the tags on the right side of the definition symbol, as suggested by the examiner, that name attribute would not be used to reference the grammar structure. Instead, only the name on the left of the Backus-Naur format is used to reference the grammar structure. Everything on the right of the Backus-Naur format represents the grammar structure itself. Thus, adding a name attribute to the tags on the right side of the definition symbol in Parks would not form the present invention since it would not allow a grammar structure to reference a grammar structure by the name attribute set in the tags. Instead, under Parks, the only way to reference a grammar structure is by using a name that is clearly outside of the tags.

Thus, the combination suggested by the Examiner would not produce the invention of claim 1. In addition, it would not be obvious to those skilled in the art to add name attributes to the tags in Parks. Under Parks, attributes found in the tags of actual documents are not placed in the grammar. For example, in the <cell> tags of FIG. 5 there is an "idref" attribute. However, in the grammar structure "cell_tag" of Fig. 4A, which includes the <cell> tag, the attributes are not listed. Thus, Parks teaches away from including attributes in tags in grammar definitions.

By providing name attributes and rule tags, the invention of claim 1 provides a simple way to define a grammar within

relying on the Backus-Naur format. As noted in the specification, the Backus-Naur format it complicated to use and makes it difficult to understand the structure of a grammar.

Since none of the cited references show or suggest rule tags that have a name attribute set within one of the rule tags that can be used to reference the structure delimited by the rule tags, the combination of the cited references does not show or suggest the invention of claims 1-8 and 10-12.

CLAIMS 13, 14 AND 16-29

Claims 13, 14, 16-18, 20, and 22-29 were rejected under 35 U.S.C. §103(a) as being unpatentable over the combination of Brown in view of Ladd in view of Parks and further in view of Sakata. Claims 19 and 21 were rejected under 35 U.S.C. §103(a) as being unpatentable over Brown in view of Ladd in view of Parks in view of Sakata in further view of Martin (U.S. Patent Number 5,642,519).

Claim 13 is directed to computer readable medium having instructions comprising an application providing a speech interface that expects to receive speech from the user as possible input. A speech grammar associated with the application is also provided and defines valid word patterns for the user's speech. The speech grammar is written in a markup language such that a start tag and an end tag having a first tag name that delimit a set of elements of the grammar are located between a second start tag and a second end tag that have a second tag name. The speech grammar comprises rule tags that delimit a valid grammar structure for the grammar and that comprise a name attribute that is set equal to a name by which the grammar structure can be referenced. The name attribute is set within a rule tag.

Claim 13 is not shown by the combination of Brown, Ladd, Parks, Sakata and Martin. In particular, none of the cited

references show a rule tag that delimits a grammar structure and that has a name attribute set within the rule tag. In particular, Sakata and Parks do not show such rule tags. As noted above, although Sakata shows HTML tags with name attributes, it does not show rule tags that delimit a grammar structure such that the name attribute of the rule tags can be used to reference a grammar structure.

In addition, it would not be obvious to take the name attributes found in the Sakata tags and place them in the tags in Parks. As noted above, Parks uses the Backus-Naur format in which the name of a grammar structure is in the left part of the format and the structure itself is in the right part of the format. It would not make sense to add a name attribute to such a format. Further, as noted above, Parks teaches that attributes for tags should not be included in the grammar definitions.

Since none of the cited references provide rule tags that delimit a valid grammar structure and that comprise a name attribute set within the rule tag, the combination of these references does not show or suggest the invention of claims 13, 14 or 16-29.

CLAIMS 30-43

Claims 30-43 were rejected under 35 U.S.C. §103(a) as being unpatentable over Brown in view of Ladd in view of Parks and in further view of Sakata.

Independent claim 30 is directed to a method of defining a grammar for speech recognition. The method includes delimiting a grammar structure within rule tags that conform to a markup language. The method further includes delimiting all of the rule tags for the grammar within grammar tags that conform to a markup language. None of Brown, Ladd, Parks or Sakata show or suggest delimiting a grammar structure within rule tags that conform to a markup language and then delimiting all of the rule tags for the

grammar with grammar tags that conform to a markup language. As such, the combination of Brown, Ladd, Parks and Sakata does not show or suggest the invention of claim 30 or claims 31-43 which depend therefrom.

CONCLUSION

In light of the above remarks, claims 1-8, 10-14 and 16-43 are patentable over the cited art. Reconsideration and allowance of the claims is respectfully requested.

The Director is authorized to charge any fee deficiency required by this paper or credit any overpayment to Deposit Account No. 23-1123.

Respectfully submitted,

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